

Nov 1987

#1

Field notes - Reintro +  
Recording LC -

\* Return of Jersey  $\rightarrow$  to group  
after wounds / injuries.

\* Bees in nbs.

\* A 12 hr observ. day with  
Segunda Agua + Andy B.

\* Following Riverbanks with family  
break-up

\* Day in rain with Tres  
Machos + Andy



Solutions to admin.  
crisis - ① AB back in  
April - returns thru  
July ② Telephone Milton  
and Celio  
for names + addresses of  
best students. Jim +  
Andy interviewed in Feb/Mar.

(a) need non-S.J. person to  
replace Cibele, perhaps  
2 (eg. Ines + Zigue)

(b) need student continue  
with GLT studies,  
another problem -  
ask Andy.

(c) need to replace Beth

(d) need admin. to  
replace Jamery -  
perhaps one from  
reintrod.

BRAZIL

2 Nov 1987 -

11 Nov 87

development day

behav. ecol.  
tree use / phenology  
VCS.

Can Coimbra give us  
wild or to put w/  
♀ + offspring.

Provide space.

Help distribute GLTs  
to Brazilian Zoos.



2 NOV 87:

Arrival : discussion :

Andy's group 3 Machos  
has offspring

129/130 days post  
mate-guarding  
episode

Andy



3 Nov Tues

Q&K + Cibebe drop :

Luis w/ buvibanks

Paulo " Jersey.

We go to Seattle &  
feed + do focals.

Seattle all LR

Seattle -

go for eggs immediately

#3/5 snuff / lick  
goiaba

+1 2 snuff.

→ #2 dark tail

#5 juvenile no  
mark



#5 no mark.

#3 LR + no mark

#1 J4 + LR

52 with radio

#3? AW

After feeding @ 0930  
S group takes eggs;  
sniffs garbana (special  
experiment) +

retreats to NB top for  
grooming + resting.

They do not explore  
feeder. ~~Feeder~~ Feeder @  
10m away from nb.

No problem w/ bees this year.  
Could it be the fiberglass  
nbs?

The color + fur texture  
already looks better than zoo.

The animals produce  
one set of LCs as we



come in; including  
chattering.

Grooming group break-up  
@ 10<sup>00</sup>.

#3 explores banana, but  
doesn't eat. #5  
explores palm frond.

#2 + 1 less exploratory  
than #3 + 5.

#5 locomotes well;  
also #3.

Cibele says that they  
after LC,



1100 hrs  
 Lincoln:  
 T 1-4 #1  
 T 2-3 #2  
 T 4 #4  
 T 0 - 5 (#1)  
 T 1-4 gets egg (#1)  
 FS w/ T 4. (#4)  
 "No mark" e ~~to~~ eggs, #5

♀ #2 takes banana  
 #5 att. F steal.  
 #2 resists several  
 times. #5 → Papaya  
 #1 tsicks numerous  
 times.

1136 #5 on feeder  
 #4 FS 1/2 banana #4  
 #5 mms on feeder  
 #5 + steals banana  
 from #1  
 → Lincoln group



has very restricted  
pathways. Only moving  
on branch > 5 cm.

# 2 eats feces  
from L1.

3/4 groups eat  
feces — all except  
Jersey.

AW ♀ #1

12:28 Cilele moves Lincoln  
feeder. #5 goes  
immediately. Concern  
because animals not  
moving out, & are losing  
weight.

Feeder location  
≤ 10 m from nb; same  
direction as last night's  
feeder. Almost directly  
above platform.  
#5 tastes goiaba.

12:38 #1 ♀ & bravelard  
C. says They are losing  
weight. Not ranging  
much.



1300 As we leave  
L<sup>#</sup> 1, L<sup>#</sup> 5 go on  
feeder.  
L<sup>#</sup> 4 next.

LC = chips +  
Whine

4 Nov 87

arr. Riverbanks  
area @ 0809 hrs.

I hear @ 4 LC.  
Michael<sup>B.</sup> goes to find  
group.

0818 3 more LC from up  
hillside. By ~~MB~~

0826 Michael puts out food

0827 2 more LC

0928 Tape 1A → 543  
mainly alarm  
chirps; 1 raps;  
food chirps.



0945

3 grooming clumps  
animals quiet  
Tape @ ~~#569~~ #569.

1033 End tape @ #730

Side B begin @

1033.

Food chirps / rasps.

1045-1100 Lunch.

Terminate #095 11:25 AM

Butter's dead  
Animals Quiet.

1130 hrs

Collect scan data  
until 1300 hrs,  
Leave Riverbank 1300.

Impressions: good habitat  
for learning to locomote  
Large group size with  
infant might facilitate  
movement since group members  
must be at a distance  
some of the time.

But they are also  
better at finding  
food.

Heavy feces eaters.



~ 3:20 Return to house

Jersey ♂ in infirmary  
Dionisio brought in  
I with injury from ~~private house~~  
Abt records Seattle ♂  
Yaya - behind house -

~ 5:30 - 5:45

Counter # 100 - 230.

The light showing the  
recording intensity  
is not working although  
all else is working;

Discuss visit w/ Coimbra  
Dionisio arrive - Try  
to coordinate Fri.  
Organize w/ Belz to work on  
her application  
after a lunch w/ Coimbra.

Process Jersey ♂ before  
lunch. Two wounds;  
one looks like fly strike but  
no grubs obvious.

Rodex removed.

Photos taken. ♂ given  
Furacyle + DDT around  
wounds + antibiotic.



5 NOV 87

0735-0750

Record battle  $\rightarrow +$

Xuxu behind house

Tape 1B - 230 - 370

---

To Jersey look at

♀ 4 T 3/4

has wound left side

0857 arr Jersey.

this changes corridor

0904 all animals look  
good.

Record Jersey Tape 1B  
begs 375-



0915 Release of ♂ #2  
Locomotes well -

Begin L.C. softly  
several times.

Lots of genital mk.

0920 Into nb, but  
out again.

Lots of scratching at  
back of neck.

The gr. doesn't travel  
more than 15 m from box.

Nice flat habitat  
with good understory

0925 #4 finds bananas  
@ 10 m from box.

Feeding chrys recorded.



0935 - <sup>#2</sup> ♂ gscr a lot.  
♀ #1 app, snuff,  
~~has~~ has back to ♂  
Then AW

♂ <sup>#1</sup> 2 gscr much  
#2 stays near nb  
#1 app #2 and +  
#2 doesn't follow. #3 →  
app #1. ♀1 agl → 3  
♀1 app → 2 snuff.  
→ 3 " " 2 "

→ 2 clearly more comfortable  
#2 gscr.

0950 - all animals enter box

0957 All animals in box  
Irritated by #5 who  
moved in + out of  
box rasping + charging



Eventually whole group entered.

10<sup>11</sup> Group still in box

Counter # 466

10<sup>30</sup> Still in box + quiet

① need admin.

② " 2- Cibebe replacement

③ " same male person

to work with Jody-S.

Cibebe replacement not from Silva Jardim.

10<sup>44</sup> Still in box but more active.

10<sup>47</sup> # 3 + 5 emerge from box. # 5 goes back in

11<sup>00</sup> hrs #3 back into box with group.

11<sup>05</sup> #3 + box.  
#1 + "

11<sup>07</sup> #5 + box: #1 agl #5

11<sup>14</sup> - Only #1 out of box  
Others in + lots of noise from scuffling

11<sup>15</sup> #2 emerges from box to top of box.

11<sup>17</sup> hrs moves <sup>feeder</sup> ~~to~~ closer to box.

11<sup>19</sup> #2 sol. gr. from #1.

#1 agl #2 near wound on neck,



1122 #1 contin.  
agl #2.

#2 doing lots of  
gscr + picking  
on right inner thigh  
~~area~~ @ 2-3 inches  
from genitals.\*

Gscr almost continuously

1127 #2 has solicited agl  
from #1 twice more.

She agl for a second or  
two, then leaves.

1128 She returns to box,

\* This may be back of  
thigh near tail base  
where other wound is.

→ seems a bit unsteady  
because of discomfort.  
He sol. gr. again  
from #1.

[Genital rub may relieve  
discomfort; itch from  
tail base].

1132 all animals + box

1134 No VOCs.

1136 sev animals back in  
box. #2 → box.

#5 ~~foraging~~ on a brom.

#2 + box. #3 in  
tree near H2O.



1147 # 3, 4, 5 out of box.

# 1 + # 2 still in + around box.

1152 # 2 + box - sol. agl from # 1.

1154 # 1 + box - Only # 2 remains.

1155 # 1 → box.

# 1, 2 + box; # 2 sol agl.

# 1 agl briefly.

# 5 → box.

1157 # 2 + 1 out # 2 sol agl - yes.

# 1 agl, # 1 f.

1159

# 1/2 emerge

# 2 sol agl.

# 1 agl briefly.

1201 all + box except # 5.

1218 J1 LC twice when group is about 15m from box.

1235: J1 LC again 2x when group is @ 10m away

→ 1237 group foraging near/on ground.

Feed on ~~antennae~~

I record some food chirps → Counter # 525.



12<sup>39</sup> Grp at or near grid.  
foraging in leaf  
litter.

1307 Fresh  
w/ Tape at  
Counter # 530.

Return to House -  
@ 1430.

Collapse & barely move.

Later Cibeles finds  
out that Paulo failed  
to tell her that Ruvimbira  
had bees in their nb.

De decide to go  
back to see where they

sleep. Cibeles, Michael  
I go & discover that  
the battery on the  
receiver is dead. Luis  
had left it on.

Before <sup>this</sup> Laurence returns:  
we briefly talk @  
admin. He recommends  
FBCN & universities when  
looking for administrator.  
Suggests Nat IBDF staff  
make @ \$6,000/yr.

Mtg w/ Laurence  
re: Jaire et al

→ fair  
Process of with leg broken



FBCN Pres. Dr. Vanderbilt Duarte  
VP Magnanini  
de Barros

6 Nov -

- ① Bus → Rio with Michael
- ② Promig drive →  
Combra
- ③ C Combra - discuss  
Princess visit; collabor.  
Combra cochs anger  
at Dietz, PdA crew,  
Lawrenz, lunch.  
Beth late -
- ④ Broken windscreen
- ⑤ Expansão +  
Andreia Ives Hublet
- ⑥ Beth / Zigue / Ives
- ⑦ Drive home  
rain - Beth /  
Zigue  
Michael Norma Reg.  
Sonia fired FBCN

7 Nov 87

0540 With Andy at ~~the~~  
sleeping hole of  
2<sup>nd</sup> Agua group.

#530 0636  
Sleeping tree

grp emerging from tree  
feeding chirps.

fresh Tape 87-1  
between

0700 -

0914



Complete  
Tape 87-2  
w/ 2<sup>o</sup> Aqua  
intra group calling

Probably GLT # 169  
calling from  
other group @  
50 m away

Changing Tapes  
0915-0921 - Long Calling  
but might have  
been visual contact  
during this period  
since vocs close.

Begin 87-3 @

Stop 9:37 hrs # 235  
→

0939 T2 LC.

0940 T2 "

0941 ? LC

0942 ? LC

0943 ? 2LC; LC  
LC

0944 - LC;

0945 - 2LC at  
distance



Andy thinks that  
because ~~37~~  
infants.

no encounter w/ visual contact  
Pres muchos group has v. young

0946 -

0947 - LC, LC, LC

LC

0949 LC, LC, LC

Lots of intragroup  
calling now.

AB last heard other  
group @ 0945.

0950 - other group LC

2<sup>nd</sup> group LC, LC, LC

0951 LC

~~0950~~ 0956 Group

moving

Then foraging

10<sup>01</sup>

LC.

LC from distance

LC here

10<sup>02</sup>

LC.

10<sup>08</sup>

Quiet -

♀ 1 (T2) resting  
with infant.

nursing

T2 huddle w/ ~~T2~~

10<sup>10</sup>

T4 + T1,2

latter 2 play (T4 + T1,2)

10<sup>11</sup>

LC from ~ 30m.

Grp huddle + agl.

Quiet

10<sup>13</sup> - 10<sup>15</sup>

Grp huddle

Inf rasp, some  
tulls



→ end Counter # 288,

1017 2 LC  
Inf. rasp. w/ T4

1020 LC followed  
by answering trill.

1038 Animals feeding/  
resting chirps,  
trills,

#  
→ 349

1040 Animals quiet + resting.

1042 T2 carrying Inf.  
T2+4 hgl "

1045 - Still resting + quiet  
6 animals in one tree  
3 " " another "

1057 R -  
1100 Break-up of rest.  
Begin to move!

1105 Counter #448  
Animals in fruit tree.

1109 Counter # 462  
Then infant rags +  
chirps

1117 # 521  
Feeding chirps  
Inf rags,  
Some micro man.  
Lots of movement.



1124 Some Inf rasps  
but adults spread  
+ some resting.  
Counter #545

1141 R + Quiet.

1201 R + Quiet.

1219 R + Agl + quiet.

1221 Everyone anxious  
+ shits + pees.

---

1225 LC.  
animals 5 + P.  
LC (all are BLC)

---

→ Counter #652  
Inf LIC + rasp

until picked up by T7  
@ 1233

---

→ end of tape  
→ 1247 Infant chirps  
while alone in  
solitary play.

Then group play  
(w/o 3 infant) involving  
whines + chirps  
R + T play - Chasing.

---

Tape 87-3 Side B

1254 On + off play  
continues - Inf  
off but no rasping



Radi'd ♂ whine at me  
Inf chirps.  
little whines during  
R+T play

→ Counter 070.

1302 - Resting / grooming /  
some play / some  
forage - mm

1307 Same  
Grp members w/in  
@ 5m of each  
other although  
doing different  
Things.

1316 Inf does some raspy  
trills  
Is groomed + huddle  
w/ T 1, 2, 3, 4.

→ Counter 103 (1316)

Play whines? + rasp(T)  
→ 165 1323 hrs.

Note: becoming at  
full intensity  
nearly all  
time.

Closest animals  
at @ 5 ft.



1335 Grp quiet except T2  
happ.

Gm, rest; no play,

1337 B-LC with trill  
response.

1338 BLC -

No ID  
1339 BLC -

1340-41

Animals begin moving  
- several BLCs

T2 picks up infant.  
→ Counter 310

1345 Loud BLC w/  
trill response.

→ Counter 310

1346 BLC behind me

1347: BLC " "

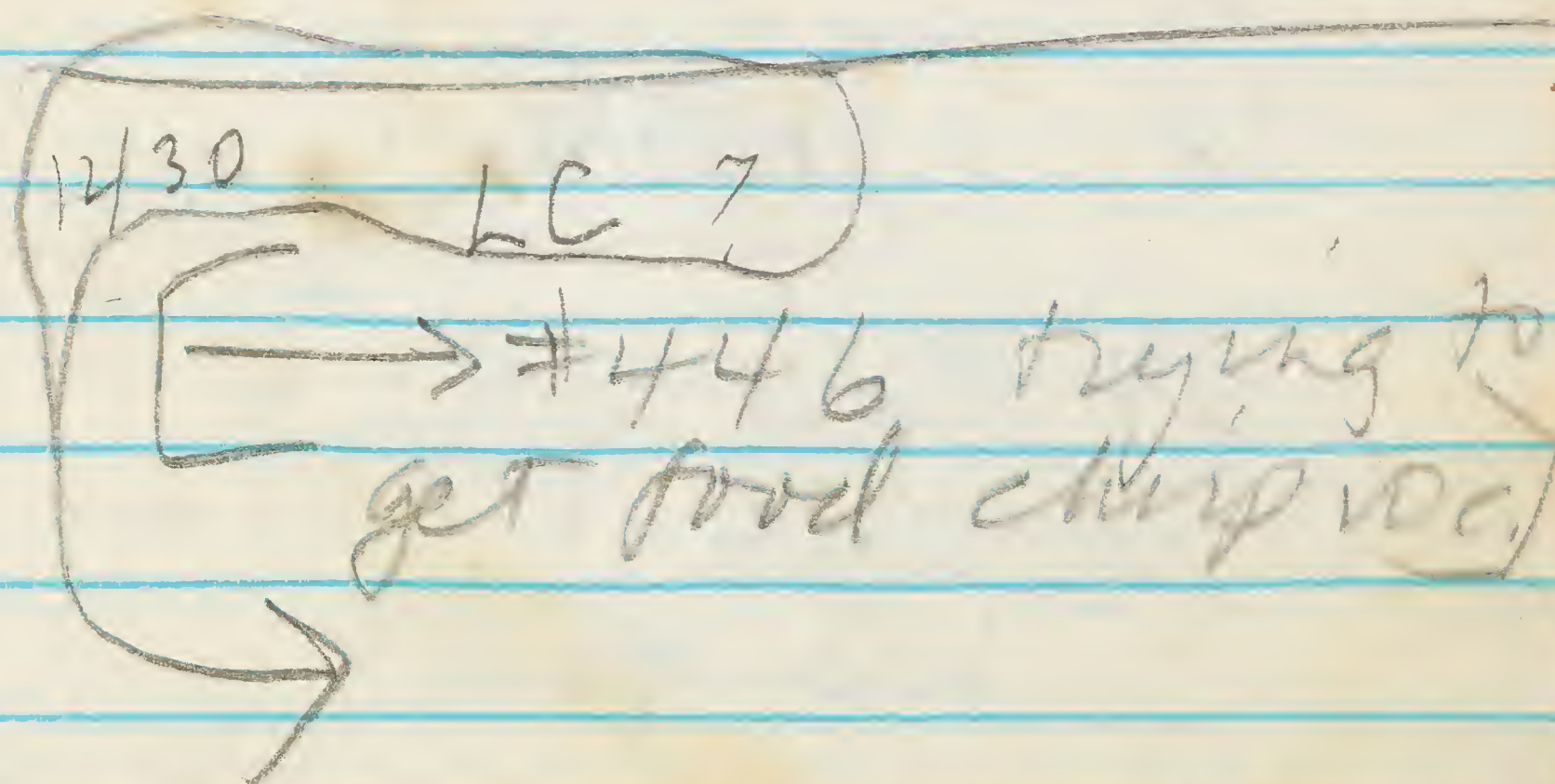
1348-52

record →  
Counter # 355.

1401 - Group resting -  
quiet again.  
Counter → 375

1409 - 1/2 grp rest  
1/2 R+T and chasing  
play.

1411 - 1416 Play → Ctr  
# 432





1436 LC?

1445 grp moving  
slowly - some  
foraging.

---

1447 food chirps  
pichirica tree  
→ A82

---

→ 1453

→ Ctr # 522  
Feeding chirps  
♀ T2 / mother

---

1457 slow moving +  
foraging

1459 - 1509 Play bout on  
ground → @ 2m  
in tree -  
Total of 5  
animals R + T +  
Chasing play  
→ Ctr # 631

---

1523-1525

LC, Rasps, Chirps from  
Inf.

T2 + 4 picks up  
Inf + leaves  
→ Ctr. 655

---

↑ Remainder of  
grp quiet, foraging,  
+ dispersed



15<sup>32</sup>  $\frac{1}{2}$  Sorage  
 $\frac{1}{2}$  R.

---

→ 1538 → #663

ends w/ LC and  
responding calls by 2  
animals

---

1547 - Animals all  
alarm chirp &  
move position.

1548 Play between  
2 young.

1553 Continued play &  
rest - soft  
chirps + whines  
only.

1600 T1 picks up kid/  
starts moving.

1603 Many in crown of  
tall tree, feeding  
@ 15 m

1610 all resting again.

1615 Kid found - Off  
but w/

1626 - All resting,  
Soft LC from?

1632 - They have  
moved @

20-30 m.  
Inf. rasp. Some  
food chirps.



Then play whines &  
chirps.  
2-3 yng playing.

---

→ #688 → 1638 hrs  
1st syllable of L.C.

ΛΛΛΛΛ

is imitation to  
play.

1640 Terminate  
Tape  
87-3B

Wrong

ΛΛΛΛΛ is imitation  
to go —

1643 They start  
moving.

1646

Foraging.

1647

Inf rasp - On feed.

1650

Food chirps.

1654

Moving.

1657

They are close &  
quiet. Animal w/  
Inf in rear as  
They move.



1658 v 5 lets' move  
calls.

1659 ~~3~~  
3 more "vamonos"  
calls.

1700 Count calls  
///

1701 //

1702 /

1703 Inf rasping.  
They've stopped!

1704 1 vamonos call  
Inf alone, rasping.

1705 They are moving  
leading ↑ hill.

1706

1707 Foraging.

1710 1 "v" call

1712 2 "v" calls.

1713 were on hill  
but not moving  
some foraging.

1714 ↓ hill @  
10 m.

1715 Kid (~~Inf~~) alone  
rasping.

1716 Food chirps.

1719 Foraging pickin' up.

1722 Seem to be  
moving but no "v" calls.

1723 "v" call.  
Inf rasp.

1724 "v" call

Inf picked up.

1726 moving

no calls

1727

stopped.



1728 Kid rasping.  
1730 2 "v" calls  
Kid picked up  
"v" call again  
1732 Moved @ 20m.  
1733 Kid off.  
1734 2 "v" calls  
1735  
1736 2 "v" calls  
2j  
moving; Kid picked  
up  
1738 Stopped kid off  
#107 takes kid.  
They move.  
~~1741~~ 1741 moving.  
1742 Stop.

1745 Have moved  
another 15-20m  
Are now stopped.

1747 moving again  
Soft whines -  
single calls.

1751 stops near a  
large bromeliad.

1752-54 Moving  
Then stop.

1756 - SA  
Kid on Father T1

1758 Food chirps  
→ still has kid.

1800 Eating sirichica

1805 They start  
moving - Then a  
series of alarm  
chirps.



1808 Moving again.  
Very brief whines.

1810 Reach tree  
trunk (dead)  
where they slept  
last night

@ 6' 8"  
4' wide

1813 Inf. rasps/  
out of hold, sit  
on trunk +  
makes 3 LC.  
Then quiet.

Big buttressed  
roots

1815 Quiet.

1820 + mata

Talk w/ Andy re:  
administration when  
Laurenz leaves.  
Change Laurenz decision re GLT?  
Talk w/ Beth, Cibele,  
Andy + Michael  
@ Laurenz.

---

Comments re:  
observing 2° Aqua grp.  
Infant carrying  
The let's leave call

Incredible 5-way  
play bouts -



Could study play;  
vocs; development;  
feeding ecology;  
locomotion -

Ted Grand visit?

Intra-sex relations  
Behav. development.

June = July/  
Jim Holland  
Feb ↑ Cibebe Andy?  
Steve T. Ben  
Mike P. Beate

Jody Feb?

+ H.

8 Nov 87 -

Michael → Jersey

Cibebe → Riverbanks

Figure \* D →  
Seattle + Lincoln

Cobra - dead true  
coral snake on  
road to Seattle.

10<sup>20</sup> Enter Seattle area  
They are at box.

S1 ♀ finds mm  
feeder; doesn't  
feed.

S5, S2 eat bananas.



1032 They don't seem  
very hungry.

Are mm for  
natural foods.

1042 3 LC in row  
by group members

with some short  
clucks at end,

Nice habitat

1051 LC S<sup>#</sup>3

1100

♀<sup>#</sup>1

SS at mm;  
eat

1102 S2 ENA

Foraging a lot -  
mm - at low  
heights + on ground.

1110 middle + agl.

1116 #5 ENA

#2 steals fd #5

#2 Empurran #5



Mainly following fixed  
paths also some  
vines + L5  
incorporated

Some mm -  
I think more than  
Lincoln.

→ Ctr #82  
11:28 AM

82→95 Explains,

Riverbanks / BB  
Fight.

Pick up Cibele at  
Riverbanks

They are > 200 m  
from nb in Bb  
clump. Also fight 98 3.4

Cibele leaves them  
some bananas.

Michael said that  
he had hard time  
finding Jersey > 50 m  
from nb.

PM rest + meditate  
+ mm.

Evening → S.J.  
to call  
from Ricardo  
+ Elena



dinner pizza  
+ drink + chat  
with Andy +  
Cibele.

9 Nov

→ Riverbank  
with Michael -  
Arr nb @ 0846.  
animals not here.

Ckr # 111.

[to changing nbs  
daily a foil against  
trees?]

1015 Some contrast  
2LC [all  
BLCs]

1018 BLC

1019 BLC, BLC, ~~BLC~~

1020 BLC, BLC

BLC  
1021 BLC



1023 BLC / BLC

1024 BLC BLC  
BLC

(group calling  
back + forth)

Then chirps.

1025 BLC / BLC / BLC

@ 15-20 m

BLC

1026 2BLC

1027 Find R4

1029 2BLC

Then R4 LC x2

Answer BLC

R4 - LC

1030-1036 Good  
record LC by  
R4

→ 251 CH #

1037 R4 / answer  
R4LC /

---

1046 LC R4

1048 R4LC  
answer down hill

R4 fd chirps / mm.

---

1051 off CH # 760.



1053. R#4 LC

R#4 LC

1054 R#4 LC.

RY begins to descend hill.

1055 R#4 LC x 2

1056 "

1058 LC / RY

1059 LC / RY

1100 LC R4.

Remainder of group at quite a distance.

1102 LC R4

1104 LC R4

1110 R4 following Michael & I as

we search for main part of group.

1116 LC ? (Possibly RY no longer visible).

1117 LC from across (not R4)

1122 LC from across  
" " "

1124 LC from above

1127 Visual Contact

Gap makes 3 LC.



1131 R5 LC.

T2+4 Rad looks  
OK except lower  
lip slack.

1133

R4 behind us,  
followed us to  
group.

1135 Contact call R4

1136 ~~1133~~

LC + chucks  
R3

1137 short LC - R4 (?)

1138

LC ?

R6 rasps 1146

Record → 1148

Ch # 542

1148 soft contact call  
probably R4  
(ramona call ?)

1149

soft contact call uphill  
again

---

1154 LC from R4  
up hill.

R3 between R4 +  
group.

R4 soft contact  
notes

1155 R4 LC.



1156  
~~R4~~ <sup>2X</sup> R4 contact  
notes [≡] 1st  
syllable of LC)

1156, LC R6  
1157 R4 cont. notes  
R6 " "  
(chevron vocs)

record R3  
chucks

1200 R4 cont. calls  
R6 " "

not record.

Record → 12:10  
Ctr # 682 -

12:13 LC contact note R6

12:14 R4 appears but  
others have moved  
down hill.  
R5 rasps at R4

Tape 87-4 B 12:22

Group begins moving  
no recording of calls.

1234 LC + chucks  
from R1

Other vocs have  
mainly been trills  
+ short contact calls.



1239 R4 LC  
from uphill

1240 R4 LC uphill

1241 " "

Grp seems to be  
attending to +  
following her calls.

1244 LC? within  
group.

Group foraging in  
palms

2 LC from uphill  
at a distance. R4

Another LC; R4 -  
No response from  
group.

not recorded

1255 LC from uphill.

1257 Soft aaaa

call from R3.

1258 Loud LC R3  
Loud aaaa from  
R1 or R2

1300 LC R2 begins LC  
followed by R3

LC from uphill

LC response R3 + ?

begin record.

→ #121 (?)

13" R4 call from  
uphill.



see squirrel uphill

Several of animals  
foraging for food  
on ground. I  
have seen at least  
R7, R6, R5, R2, 3  
eat animal prey  
today.

13/3 R4 calls up hill  
R7 answers  
R4 calls again

13/4 R4 LC uphill.

13/5 Horn work from  
down below

Term. group @

~~not recorded~~ Ch #121

13<sup>19</sup> LC from? in gp

R4 answers.

R4 L.C

R3 answers.

13<sup>21</sup> LC gp - R3  
R4 LC.

We leave group + they  
continue cross-LC  
at each other until <sup>at</sup> are  
out of earshot. "

when  
Luis picks us up + we  
get to asphalt meet  
Sonia + Andreia who  
say that f.e.R. is  
broken down in



Kombi (Freira) near  
R.J.

Organize \$ + vehicles  
to get Beth.

Michael, Andreia +  
Jana go.

Andy + I talk re:  
his research.

Everyone return early +  
OK.

David Bowie movie

The Labyrinth is  
on.

Reserve full again  
with Beth, Andreia.

10 NOV 87

Stay back to work  
some with Beth on her  
application. + catch  
up on writing.

0815 BLC from ♀ with  
broken leg.

She has L.C. 2x before,  
followed by

0816 ♂ LC by S4 +  
Xuxa — 2x

0839 LC ♀ followed by  
LC Seattle 4.

1016 LC ♀ — no response



10<sup>21</sup> front of house  
♀/♂ initiates  
BLC.

S. 40 → responds.

Occurs twice.

10<sup>22</sup>: S → LC followed by  
XuXu.

S → LC again.

10<sup>25</sup> LC again. I'm not  
sure who started.

Worked on writing  
up notes.

Talked w/ Laurenz  
in P.M.



Went to livebanks  
w/ Cibeles to  
~~ref~~ put up new  
nest box,  
Luis did it, in  
rain.

Cibeles puts up  
small n.d. for  
R4.

We return  
soaked.

Bees get Cibeles &  
Luis.

Talk w/  
Laurenz after  
dinner.  
Cibeles says that  
R1, 2, 3 are clucking  
at R4

11 Nov 87 Wed Tres  
Machoo

0617 Make 1st  
auditory contact  
after 30' walk.  
2LC.

0622 chevron call

0623 LC at distance

2LC answer/close

ΛΛΛΛΛ call  
3X

0624 2 more Λ calls  
will try to  
record



Begin recording 3 March

0630 hrs

1/2 way thru

87-4A -

Chrs at 000.

---

0635 LC / NR re

LC response NR.

LC by 2 am

0642 Chr # 38

Record V call.

0647 Animal moving

# 65

0650 LC-T2

0657 Term Side  
87-4a

Chr # 150

---

Side 87-4B

0658

Chr. zeroed

Begin LC

---

0709 # 125 some LC  
chirps.

---

@ # 160 light voc  
LC + clucks

# 183 0713



52-53  
-A1-53  
@ #160 - AB heard another  
group at a distance  
when LC w/ chicks &

0714 - 0715 3-4 LC.

0725 #365  
LC "v" calls  
chirps / whines

---

0733 ~ #460  
food chirps territory  
outside normal range  
feeding on pitcher.

---

0742 #509  
LC Fd chirps  
Animals mainly  
feeding  
T4 holds up rear  
is pretty quiet

0744 They don't seem to be  
headed towards an  
encounter at this point  
altho AB heard the  
grp at. @ 0740.

---

0759 They have moved to  
low swamp area.  
Infant rasps < #575,  
1 LC @ 0800  
Infants 10 d (Twins)

---

→ 0811 Ctr #688  
Some LC  
Infant rasps -  
Infants transferred  
to T2-3 from T1  
and T4.



This each adult ♂  
had an infant +

♀ approached each  
♂ + removed yng.

Then nursing + gring.

♀ was eating + fd. chirp.  
before nursing.

Yearling was rasping  
when Inf rasp  
just before ♀ took  
Ints.

0814 LC ?

0815 " ?

End tape

@ Ctr #700

Tape 87-5A 0820 AM  
ctr zeroed.

♀ nursing.

T1 taking infants.

0829 → #100

Inf rasps/

yearling play whines,  
♀ chirp

→ 0850 → #330

♀ T2 food chirps  
several LCs

There had been some  
response from another  
group in the distance

Rain starts.



0909 - Unhabituated  
group of pr. to  
encounter. We are in  
middle. They chuck  
at us.  
Tres Machos falls back  
and LC 2X at  
0909..

→ #485

---

0917 2LC NR

0919 LC "

0922 LC

" "V" call

0923 make visual contact

T2 has infant  
T1 trying to get  
them

T4 LC

0926 LC / no SD/NR

LC T2♀

0927 LC T2♀

LC T2♀

LC T2♀

NR

---

0928 ~~T4~~ LC with Inf.

T2 LC 0930

---

→ 0934 #551

T4 09 alarm chirp at  
us - Inf resp.

"V" call T2♀



→ 0947 → #593 LC/  
moving, now  
foraging.  
Food chirps.

---

0957 Lots of food  
chirps.  
12C

---

1011 → CTR #684  
Inf rasps  
"V" calls  
T4 0→

---

T4 2 "V" calls NR

---

1015 moving

1016	V <sup>11</sup> call	T4
	" "	
	" "	

"V" call T4  
" " "

1025 → end tape 87-5A  
#705

Recorded T4 with Inf  
alarm chirp/vill.  
Attempted to record "V"  
call.

---

87-5B 1029 AM  
CTR zeroed

1040 moving thru low  
stature impenetrable  
shrub /  
Animals quiet.



1048 Animals moving  
slowly; some foraging;  
pretty quiet except  
soft rasps.

Then during this  
minute louder Inf  
rasps heard.

1105 ♀ T2 has  
young / nursing.

LC T2 is  
carrying yng.

1111 T1 → takes Inf

Rain begins  
Gp under vine.

~ 1120 Rain lets up +  
"V" calls start to  
be given.

They start moving  
with "V" calls  
1120 — 1128.

1132 LC NR  
Ctr # 232

---

1133 Feeding Chirps NR

1138 "V" calls  
raining again



1146 " "  
Some v calls  
moving → 1154

1154 To roost in  
covered tree.

1206 as before  
Inf. rasping the  
whole time.

1212 Some animals  
emerge. The  
rain is letting up.  
Interesting day  
↑↓ hills &  
wet!

1215 They start the  
"v" calls altho  
rain not stopped.

Animals have been  
moving - raining still  
1227. 2 LCs

1230 T1 ♂ (probably  
father) removes  
Info from T2 ♀.



1234 food chirp +  
animals move.  
Then "v" call.

1240 all animals feeding  
together in tree.  
Some attempted  
F. Steal going on.

Then 2 "v" calls.

1244 moving

1245 Some food chirps  
+ "v" calls.

more v calls

T1 carrying Inf  
taking up rear,

making "v" calls  
(1248)

1259 Hit a fruit tree.  
Feeding a bit. Rain  
getting harder again.

1325 Monkeys  
huddled in tree.

1337 Huddle breaks up.  
light rain.

1340 Kids start rasping.  
T1 "v" call  
T1 LC.



1343 Grp starts  
moving.

T4 chirp/wh at  
Andy - carrying  
both kids.

1345 Start raining  
harder.

1404 Still raining.  
Animals were in  
a tree, huddled,

Just started  
moving.

Sept " " v calls

1413 Moving

1417 AM in dead  
brand ENA  
still raining

Then moving.

1439 Foraging + feed.

1441 " " v calls.

1447 LC They are  
foraging. Still  
raining medium →  
heavy



1454 one "v" call

1506 several  
LCs

1509 2 LCs

1514 LC + 1 c

can hear

Inf rasps.

Raining hard

1516 LC+ full

" 1 + "

1521

Inf rasp

+ group

Term. obs.

CT+ # 246

Return to house  
soaking wet  
@ 1600 hrs.

Work on vocs

Idman father  
stroke?

Laurenz has taken  
♀ w/ broken leg to be  
operated on in  
Niteroi. Doesn't  
return at night.

NEW BOOK



Handwritten notes on the left page, including the word "Lecture" and other illegible text.

Handwritten notes at the bottom of the left page, including the word "Lecture" and other illegible text.



#8] (64ASA)

5 Nov 87 -

1-2 Broken leg +  
head wounds on ♀  
brought in

6 Nov Most of roll at  
Rio Centro of  
Esposiego

8 Nov.  
32-36 at Seattle  
group Ziegler-

---

#9 200 ASA Koda

8 Nov 87

1-12 Seattle grp.  
mm, agl, lat.

13-19 Riverbanks  
in Bt - lat  
Rov.



Roll #7 (cont.)

4 Nov 87

#19-26 Jersey #20

wounds & treatment.

5 Nov 87

27-30 Cibeles owl

31-32 house +

viveiro in front  
of house

33-36 Cibeles + Michael

Car w/ logo: Velometry  
equipment.

♂1 T1 w/ radio

♀A T2

♂2 T4

(♂3 ~~T1~~ 2+4.

yearlings (♂4 ~~T1~~ 1234

Tres Machos

And horns being  
carried



~~3 Mactan~~

2° Agua →

Composicao  
favor?

10 →

2 ♀

50 →

1 ?

Segunda <sup>agua</sup> body mark

86 α 0 → 1 LH TI

87 α ♀ 2 T2

88 — ♀ 3 T14 = 1 & 4

148 — ♂ 4 T4 (radio) }  
2  
4

150 — ♂ 5 T1234

178 — ♂ 6 T24 ← 1.5 yr  
2 yr

221 — ♂ 7 T12 } = 1 & 2  
1 yr

220 — ♂ 8 T34 }

" ? 9 (or) — new

Humans can remember  
no more than 7  
Things at once "

John  
Calhoun



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